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ZERO ONE A ADENDUM

PROGRAMS - VERISON 2.2 SOFTWARE

Version 2.2 software runs on Ø1 or Ø1a hardware, but must be accompanied by Level 2.0 firmware installed onto the lower PC board on Ø1 units only. All Ø1a units are shipped with 2.2 software in place as of 10-18-84. All Ø1a units shipped before 10-18-84, incorporate Rev 2.1 software which functions like Rev 2.2 except Room Type 5 (large hall) has had its algorithm modified for further smoothness and the factory Presets are changed to provide a wider and more pratical range of reverb effects. Ø1a owners with Level 2.1 software should contact ART for more information.

Updates for Ø1 units are available and recommended. Level 2.2 software runs on both the Ø1 and Ø1a with the exception of the basic size of the programs which will be smalle on the Ø1 and Predelay which will be limited to 90ms. Rev 2.1 and 2.2 software in eithe Ø1 or Ø1a units indicates the Rev level on the decay time indicators by selecting Room Size 1 and Page 2.

The heading "Program" on the Ø1 has been changed to "Room Type" on the Ø1a to avoid confusion with "Preset".

Included in the 2.2 software is a diffusion control found as the Page 2 function of Hf damping. Variable from 0 to 6, diffusion controls echo density and fills in the spaces between individual echoes. Low diffusion levels can cause roughness on percussiv material but lend clarity and openess to smooth impulse response but sound more colored. A good compromise is 3 or 4. Use 5 or 6 only when roughness is a problem.

ROOM TYPES 1 - 5 REVERBERATION

Natural reverberation, structure size increases with increasing room type numbers. 1 and 2 are plate-like, 3 is similiar to a chamber, and 4 and 5 are like halls where 5 is particularly large.

ROOM TYPES 6 and 7 DYNAMIC REVERBERATION

Auto-variable decay time. Input signals greater than about -12 on the display cause the decay time to slowly change to the set minimum value (Page 2 decay time). Lower levels increase decay time to the maximum value (Page 1 decay time). Useful in providing ambience to complex material while maintaining clarity.

ROOM TYPES 8 and 9 FINITE IMPULSE RESPONSE

Two unusual reverberation algorithms. Variable from a decay time of .1 to .6 seconds on the Ø1 & from .2 to 1.2 seconds on the Ø1a. The mix control is not active on these types. These are called F.I.R. (Finite Impulse Response) algorithms and essentially are 48 taps on a delay line with diffusion.

Room Type 8 is most like reverberation where the output signal decreases in amplitude with time, but unlike natural reverberation, comes to a complete stop at the end of the displayed period. It provides the illusion of space without the clutter associated with long decay tails. Room Type 9 is completely unnatural and may best be described as backwards reverb. Output signal amplitude increases with time to an abrupt stop. For special effect only.

FACTORY PRESETS

The factory presets available on Rev 2.2 software represent some of the most popular settings of the Ø1a. Preset 1 is a plate, Preset 2 is a chamber, Preset 3, a large club or small hall, Preset 4 is a large hall, Preset 5 is Reverse Reverb, Preset 6 is gated reverb, and Preset 7 demonstrates the full capability of a dynamic reverb setting.